Programs and Services

Farm and Food Report, Week of March 27, 2006

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THE ART OF SELECTING THE RIGHT FORAGE SPECIES

Within Saskatchewan, a number of producers are making the transition from grain to grass and are expanding their livestock operations. Making this decision requires taking time to investigate what forage opportunities are available, according to Saskatchewan Agriculture and Food's Agri-Business Development Intern Sarah Sommerfeld.

"There are many opportunities out there, in various forms," she says, "but they all come down to one central idea— seeding a perennial or annual for grazing, silage or baled dry forage."

Prior to seeding perennial forages, producers must select a species that is suitable to their specific area, says Sommerfeld. Forage selection should be based on these criteria: soil type and characteristics, time of grazing, longevity, end use, competition, forage quality and yield potential. Specific species are better adapted to soils that are prone to salinity, flooding or drought. Tall wheatgrass, slender wheatgrass and reed canarygrass have good flooding tolerance, while alfalfa, crested wheatgrass and meadow brome harbour poor flooding tolerance.

Species that are suitable for production on saline soils include members of the wheatgrass family and altai wild rye grass. In areas that are prone to drought, producers could select crested wheatgrass, alfalfa, smooth bromegrass or Russian wild rye grass.

Depending on what time of year the forage will be grazed, the producer should choose the species that offers the greatest yield potential and forage quality. Crested wheatgrass is the best source for early spring grazing, and meadow bromegrass provides optimal forage production from late May to mid-July. Native grasses provide better grazing in late June to August.

"The longevity of various perennial species does differ, but the rule of thumb – 'take half, leave half' – should be practiced to maintain plant health and vigour," she says. "'Take half, leave half' refers to using only 50 per cent of the forage produced. This practice ansures that there is adequate plant material remaining for the growth and development of a healthy root system – which ultimately dictates the longevity of the grass species. Tame grasses can be safely grazed to various heights, but the general recommendation is to maintain between four to six inches of growth."

If the decision has been made to seed a mixture, it is important to remember to select species that are suited to the site and complement production.

"A mixture can be as simple as two species, or as complex as several species. There are benefits and costs to seeding a mixture. With a mixture, forage production can be more consistent throughout the grazing season, but a single-species stand provides more uniform growth and re-growth."

Sommerfeld notes that animal gains can be higher when grazing on a mixture, but animal selectivity can be greater, creating the need for a more intensive grazing management plan.

A mixed grass stand may have greater longevity, as more adapted species thrive and replace less suitable species, but this can result in loss of plant diversity and the benefits from seeding a mixture.

For additional information or assistance regarding seeding forages for grazing, contact the Agriculture Knowledge Centre at 1-866-457-2377.

For more information, contact:

Sarah Sommerfeld, BSA
Agri-Business Development Intern
Saskatchewan Agriculture and Food
(306) 867-5557

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ACAAFS PROGRAM STILL ACCEPTING APPLICATIONS

Mid-way though its mandate, the Advancing Canadian Agriculture and Agri-Food Saskatchewan (ACAAFS) program is still inviting applications from the province's agriculture and agri-food communities, according to the Saskatchewan Council for Community Development (SCCD) executive director, Laurie Dmytryshyn.

The SCCD administers ACAAFS, the successor to the Canadian Adaptation and Rural Development Secretariat (CARDS) program, on behalf of Agriculture and Agri-Food Canada (AAFC). Nationally, this is a five-year, $240 million program designed to position Canada's agriculture and agri-food sector at the leading edge, to capture new opportunities. Saskatchewan's share of the ACAAF program, in the amount of $3.22 million annually, is delivered by the ACAAFS committee of the SCCD.

In essence, this is a grant program with three pillars, Dmytryshyn explains.

The first pillar is called Industry-Led Solutions to Emerging Issues. This pillar is attractive to agriculture and agri-food organizations—both for-profits and not-for-profits. It is designed to provide funding to assist industry in testing new ideas and approaches of importance to their sectors. Funding is also provided under this pillar for the development of new value-added products and processes. A good example of this is the Saskatchewan Food Industry Development Centre's HAACP Technician Certificate Program.

Pillar II – Capturing Market Opportunities by Advancing Research Results – provides funding to organizations so they can address the pre-commercialization gap. Both for-profit and not-for-profit organizations can get funding for feasibility studies, business plans and marketing plans, and to complete engineering and product prototypes. The goal of this pillar is to help commercialize research done by industry, universities and/or government. The maximum grant under this pillar is $500,000, or 50 per cent of the cost for for-profits and 70 per cent for not-for-profits.

The last of the three pillars is called Sharing Information to Advance the Sector. It provides funding to assist industry in gathering, analyzing and sharing information that will shape the future of the sector. Industry organizations are eligible for up to 70 per cent funding for projects that demonstrate significant industry benefits.

"As an added development," explains Dmytryshyn, "we recently announced our new Speaker Sponsorship Program. Funding is available for speakers from the agriculture and agri-food sectors, just as long as they are dealing with issues of importance to industry. We will provide funding in amounts ranging from $2,500 up to $10,000 per application. The program covers 50 per cent of the speaker's fee and travel expenses."

Program details can be accessed by visiting the ACAAFS website at www.sccd.sk.ca/acaafs.

For more information, contact:

Laurie Dmytryshyn
Executive Director
Saskatchewan Council for Community Development
(306) 975-6849
www.sccd.sk.ca/acaafs

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BLAINE LAKE FARMER PRESERVES DOUKHOBOR DUGOUT HOUSE HERITAGE

If you are driving around the Blaine Lake area on any Saturday from May 20 to August 26, you might want to stop in at the Doukhobor Dugout House on the edge of the North Saskatchewan River Valley.

This is the site of one of the earliest Doukhobor settlements in the province, and perhaps the only one left with remnants of a dugout house, according to Brenda Cheveldayoff, a local landowner and grain producer who, with her husband, has taken an interest in protecting this part of the rich Doukhobor heritage.

"I ended up with this land because, with all the movement in Doukhobor history, a lot of the land went up for sale, and my great-great-grandfather purchased the land in 1925. When my dad passed away, I acquired the land. I had always been curious about its history, and I thought professionals should document it. Research revealed that there were as many as 300 people, and perhaps more, who lived at the site as early as 1899."

To get to the bottom of this, Cheveldayoff contacted the Department of Archaeology at the University of Saskatchewan, which led to some subsequent research and excavation work.

"Every artefact found in the house has significance—an oven door, a button, some pottery, an old shoe. All are poignant memories of life in those five early years, 1899 to 1904."

These five years were also used to plane and build a more conventional settlement up on top of the valley. Down below, the rudimentary dwellings provided temporary shelter, Cheveldayoff believes.

"The back wall of the dugout house was all dirt. They used some rock to shore it up. There was a freshwater spring just in front of the house, which is likely why they settled there in the first place," she says. "One dugout dwelling was home to nine families, who cooked and slept in an area of about 436 square feet. During one winter, five babies were born—one of them is buried at the top of the hill to the north. With no money and little resources, these vegetarian pacifists were bent on survival. As men went to work on the railroads in the summer months, the women hitched themselves to the ploughs to turn over land for gardens."

Doukhobors were good farmers, and still are today. They did a lot of the ploughing by hand, with women pulling the plough to break the prairie soil. Cheveldayoff works with members of the Doukhobor community during the summer to re-enact some of the past activities.

"We do the pulling of the plough from May to August on Saturdays. Visitors might encounter Peter Verigin, who enticed his people to move to Saskatchewan; or Leo Tolstoy, to whom Doukhobors owe the financial resources for their trip through the gift of his book royalties—both of these historic figures will be encountered in period costumes."

During the rest of the week, the Cheveldayoffs carry on their regular farm activities. Brenda is always on the lookout for new information about her very special heritage site.

"Our documents show there were 57 villages assembled in Saskatchewan, but there is no evidence of dugout houses, except with this one."

The Doukhobor Dugout House is open, rain or shine, every Saturday from 10:00 a.m. to 5:00 p.m. during the summer months. Tour times are 11:00 a.m., 12:30 p.m., 2:00 p.m. and 3:30 p.m.

For more information, contact:

Brenda Cheveldayoff
Doukhobor Dugout House
Blaine Lake
(306) 497-3140
http://www.doukhobordugouthouse.com/

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SASKATRAZ: ATTEMPTING TO BUILD A BETTER BEE

As a joke, they call it Saskatraz, after Alcatraz, the infamous California prison. It's a project to weed out bees vulnerable to two of the greatest dangers to Saskatchewan bee colonies: tracheal and varroa mites.

The project is funded through Saskatchewan Agriculture and Food. It was initiated by members of the Saskatchewan Beekeepers Association (SBA) through donations of money and colonies, in an attempt to find the most productive, most resistant stock, says SBA president Tim Wendell.

The selected colonies have been put in an isolated beeyard in an attempt to determine or develop mite resistant stock that will also perform well in honey production. Tracheal and varroa mites cause great trouble for beekeepers. Several treatments have been developed in the past. The first treatment controlled mites in the U.S. for 10 to 12 years, until the mites developed resistance.

"Then another chemical came along," explains Wendell. "It was initially developed for small hive beetles, which somehow came into the southern U.S. and decimated colonies. This chemical was wax-soluble, so residues were found in the bees' wax, and mites develop resistance to it after four or five years of use. American mites are now resistant to both these chemicals, so they have major problems down there."

Because of Saskatchewan's closed border policy, there are only a few pockets of infestation in the province, but the mites are showing resistance to the chemicals.

"We thought the best direction to go would be to find a genetic solution, if possible," says Wendell. "That is what we are trying to do with Saskatraz. Albert Robertson, who has been an SBA director for the past four years, has worked quite extensively with genetic markers, and he has isolated certain gene combinations in other species. He was put in charge of this program because of his scientific background. It takes a lot of his time, so he has decided not to run as director for this next term so he can concentrate his efforts to the project at hand."

The Saskatraz beeyard is at an isolated location in the Quill Lakes area, north of Wynyard.

"It is just a normal beeyard, except that there are no other beeyards around. We don't want to re-infect any non-project colonies, and we especially don't want any outside drones mating with stock that we want to develop out of this beeyard."

Any bee that is showing susceptibility to mites will be removed from the beeyard, says Wendell.

"There is no chemical treatment going on here. The entire colony has been infected and the whole colony has been equalized. Now they are on their own. The initial beehives that were put in there were provided by producers in the province who selected a few of their best colonies out of maybe 30,000 or 40,000 beehives in Saskatchewan."

This is an exciting project for the association, explains Wendell.

"Some bees show some susceptibility, and there are some that show encouraging signs, although it is still pretty early in the project.

"I would think that there are beekeepers around who are trying to do the same thing within their own breeding programs, but with not nearly the continuous monitoring that we are implementing. You have to have a non-invasive way to monitor mite levels within the beehives. That takes people. We just got another grant that will enable us to hire a couple of people to monitor this project. You need someone to pull slides every week, to count mites, to see if the bees have been chewed."

The adult mite lives off the adult bees' "blood" or lymphatic system, thereby shortening the bees' lives. The female mite goes into the cell of a developing larvae and lays eggs which hatch and feed off the larvae. Wendell says that Saskatraz has attracted the attention of some noted international bee scientists. The mites are simply that nasty.

"They just suck the blood of the bees. Once the numbers go up, they just collapse the hive. The bees can't deal with it. With Saskatraz, the colonies that are going in are lifers."

For more information, contact:

Tim Wendell
President
Saskatchewan Beekeepers Association
(306) 564-2315
http://www.saskatchewanbeekeepers.ca/

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SASKATCHEWAN MARKETING ORGANIC PRODUCTS IN EUROPE

For the past six years, the Saskatchewan Trade and Export Partnership (STEP) and Saskatchewan Agriculture and Food (SAF) have successfully joined forces to lead delegations to BioFach, the world's largest organic trade fair, held annually in Nuremburg, Germany.

Together, the partners have successfully raised the profile of Saskatchewan's organic industry via participation in the Canadian Pavilion at the show, according to SAF's International Business Development Specialist Renata Bereziuk.

"BioFach is of interest to the producers and processors of organic and natural products, including raw materials, convenience foods, grains, seeds, pulses, herbs, spices, flavourings, cosmetics and consumer goods, as well as organic farmer and processor associations and health food suppliers."

Over the past number of years, the European Union's (EU) organic food sector has created a tremendous opportunity for Saskatchewan certified organic products. At present, Saskatchewan ships organic wild rice, grains, pulses, seeds and flour to the EU, but Canada is in danger of losing access to EU markets because the EU has implemented a mandatory organic standard and certification system. In order to maintain access to the EU organic market, trading partners were to be on a third-country equivalency list by December 31, 2005. Canada has been granted a one-year extension. Officials from the Organic Crop Improvement Association (OCIA) and Agriculture and Agri-Food Canada are highly optimistic that Canada will successfully obtain third-country equivalency.

"In past shows," explains Dale Botting, President and CEO of STEP, "the Province of Saskatchewan has had by far the largest Canadian presence at the show. Organic agriculture provides a niche marketing opportunity that this province is well-suited to fill."

Companies that have participated in past shows noted a lot of interest in the Saskatchewan companies, he says. By setting up appointments prior to the show and then walking the show, they were able to obtain solid leads for follow-up.

One such success story is Naturally Nutritious Foods Inc. of Spalding, owned by Eric and Betty Leicht. Their company has been growing and processing organic grains and pulses since 1991. Mr. Leicht believes that attending BioFach is the best way to meet European and American organic importers, wholesalers and retailers.

"We have been going to BioFach for five or six years now," he explains. "Europe has been quite aggressive in organics—more so than Canada. The European demand for organic products continues to increase. The U.S. market is increasing also."

One of the ways the Leichts work the show is to bring small samples of some of their grains, just to give potential customers an idea of what they have.

"European and American companies are our biggest markets, so we socialize with their agents while we are at the fair. There are eight or nine halls at the show, and each is very large. There are about 35,000 visitors to the show every year. The more they see you, the better it is," Leicht says.

Naturally Nutritious markets primarily peas, lentils, split peas, oats, barley, wheat, durum, spelt, flax and mustard.

"Most of them take our products and either small-package them or put them on the retail shelves," Leicht says. "In the case of cereals, they may use them for flour. They are ending up in specialized stores, but more and more are finding their way into supermarkets, which are getting into organics all around Europe."

STEP's Botting notes that, in 2006, participation by Saskatchewan companies was down slightly, as was the case with Canadian participation, in general, due to a poor crop year and market access concerns.

"It will be STEP's—and SAF's—goal to use BioFach to maintain contacts with international buyers, and to ensure that Saskatchewan is the first place that comes to mind when buyers think of organic products," he says.

To find out more about BioFach, visit: http://www.biofach.de/main/d3zq3jg8/page.html

For more information, contact:

Renata Bereziuk
International Business Development Specialist
Saskatchewan Agriculture and Food
306-787-8541

Dale Botting
President and CEO
Saskatchewan Trade and Export Partnership
306-787-9210

Eric Leicht
Naturally Nutritious Foods Inc.
306-287-3954

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